

CLAIMS

1. An apparatus for a conductive contact comprising:
a housing with an outer cylindrical surface and a hollow inner cylindrical core with a longitudinal axis;

an actuator disposed within the hollow inner cylindrical core capable of movement within the cylindrical core along the axis; and

a spring contact with a conductive contact disposed in part within the hollow inner cylindrical core and coupled to the actuator, wherein the spring contact is capable of compression and decompression along the longitudinal axis based on movement of the actuator.
2. The apparatus of claim 1, wherein the actuator extends beyond the spring contact along the longitudinal axis, and wherein during coupling or decoupling of the conductive contacts with corresponding contacts on a portable device, the actuator moves in a first direction along the longitudinal axis, and wherein the actuator compresses the spring contact along the longitudinal axis in the first direction.
3. The apparatus of claim 2, wherein during compression of the spring contact in the first direction, the spring contact conductive contacts are lifted away from the portable device to eliminate undesired physical contact with the portable device.
4. The apparatus of claim 2, wherein the portable device is a headset.
5. The apparatus of claim 1, wherein the actuator moves in a decompression direction so that the spring contact decompresses in response to the actuator to a detent position coupled with corresponding contacts on a portable device.
6. The apparatus of claim 5, wherein the actuator acts as a detent for the mated spring conductive contacts and portable device conductive contacts.

7. The apparatus of claim 1, wherein the spring contact provides charging current to recharge a portable device battery.
8. The apparatus of claim 1, wherein the actuator comprises an outer member with a surface that engages and applies force to the spring contact to compress the spring in response to movement of the actuator.

9. A headset charging base comprising:
a body, wherein the body comprises a cradle having a cradle well for receiving a headset;

a charging base conductive contact apparatus coupled to the body, wherein the charging base conductive contact apparatus comprises:

a hollow inner cylindrical core with a longitudinal axis;

an actuator disposed within the hollow inner cylindrical core capable of movement within the cylindrical core along the axis; and

a spring contact with conductive contacts disposed in part within the hollow inner cylindrical core and coupled to the actuator, wherein the spring contact is capable of compression and decompression along the longitudinal axis based on movement of the actuator,

wherein the headset is properly guided by the cradle when the headset is inserted into the cradle such that conductive contacts disposed on the headset are aligned with the spring contact of the charging base conductive contact apparatus.

10. The charging base of claim 9, wherein the cradle is shaped to substantially match the shape of the headset.
11. The charging base of claim 9, wherein the cradle is a recess disposed in the body.
12. The charging base of claim 9, wherein the actuator extends beyond the spring contact along the longitudinal axis, and wherein during coupling or decoupling of

the conductive contacts with corresponding contacts on the headset, the actuator moves in a first direction along the longitudinal axis, and wherein the actuator compresses the spring contact along the longitudinal axis in the first direction.

13. The apparatus of claim 12, wherein during compression of the spring contact in the first direction, the spring contact conductive contacts are lifted away from the portable device to eliminate undesired physical contact with the headset.
14. The apparatus of claim 9, wherein the actuator moves in a decompression direction so that the spring contact decompresses in response to the actuator to a detent position coupled with corresponding headset contacts.
15. The apparatus of claim 14, wherein the actuator acts as a detent for the mated spring conductive contacts and headset contacts.
16. The apparatus of claim 9, wherein the spring contact provides charging current to recharge a portable device battery at the headset.
17. The apparatus of claim 9, wherein the actuator comprises an outer member with a surface that engages and applies force to the spring contact to compress the spring in response to movement of the actuator.
18. A method for coupling base station charging contacts located at a headset charging base to headset charging contacts disposed on a headset body, the method comprising:
providing an actuator at the base station charging contact;

contacting the headset body with the actuator during coupling, wherein the actuator lifts the base station charging contacts in a direction away from the headset body during coupling such that friction between the base charging contacts and the headset body is reduced;

releasing the base station charging contacts in a direction towards the headset body to mate the base station charging contacts with the headset charging contacts when the headset charging contacts are properly positioned.

19. The method of claim 12, wherein the actuator extends towards the headset body when the headset charging contacts are properly positioned, resulting in the releasing of the base station charging contacts to mate with the headset charging contacts.
20. A charging interface system between a charging base and a wireless headset comprising:
 - a wireless headset charging interface disposed at a headset comprising
 - a housing with a front surface, wherein the front surface includes a recessed area; and
 - conductive contacts disposed on the front surface outside the recessed area, wherein the conductive contacts comprise a positive contact and a negative contact; and
 - a charging base interface disposed at a charging base comprising
 - a hollow inner core with a longitudinal axis;
 - an actuator disposed within the hollow inner core capable of movement within the cylindrical core along the axis; and
 - a spring contact with a conductive contact disposed in part within the hollow inner core and coupled to the actuator, wherein the spring contact is capable of compression and decompression along the longitudinal axis responsive to movement of the actuator, and wherein the actuator extends into the recessed area when the charging base interface is coupled to the wireless headset charging interface.
21. The charging interface system of claim 20, wherein the recessed area is semi-spherical and the actuator includes a semi-spherical end such that the actuator inserts into the semi-spherical recessed surface.